

On page 8, line 25, insert --(SEQ ID NO:3)-- after "[(Ser)₄Gly]₃".

On page 15, line 6, insert --((His)₆, SEQ ID NO:5)-- after "hexahistidine tag".

On page 20, line 6, insert --((His)₆, SEQ ID NO:5)-- after "hexahistidine tag".

On page 20, line 26, insert --(SEQ ID NO:4)-- after "(G₄S)".

On page 22, line 21, insert --((His)₆, SEQ ID NO:5)-- after "hexahistidine tag".

On page 42, line 5, replace "SEQ ID NO:)" with --SEQ ID NO:6)--

On page 42, line 12, insert --((His)₆, SEQ ID NO:5)-- after "hexahistidine tag".

On page 42, line 28, insert --(SEQ ID NO:7)-- after "MIgG1 For".

On page 42, line 28, insert --(SEQ ID NO:8)-- after "MIgG3 For".

On page 42, line 28, insert --(SEQ ID NO:9)-- after "MC_K For".

On pages 43 and 44, please delete Table 1 and substitute therefore the following

replacement table 1:

Table 1. Oligonucleotide primers used for PCR of mouse immunoglobulin genes.

Primer ID	Sequence	Seq I.D. No.
A. 1st strand cDNA synthesis		
Mouse heavy chain constant region primers		
MIgG1/2 For	5' CTG GAC AGG GAT CCA GAG TTC CA 3'	7
MIgG3 For	5' CTG GAC AGG GCT CCA TAG TTC CA 3'	8
Mouse κ constant region primer		
MC _K For	5' CTC ATT CCT GTT GAA GCT CTT GAC 3'	9
B. Primary PCR		
Mouse V _H back primers		
V _H 1 Back	5' GAG GTG CAG CTT CAG GAG TCA GG 3'	10
V _H 2 Back	5' GAT GTG CAG CTT CAG GAG TCR GG 3'	11
V _H 3 Back	5' CAG GTG CAG CTG AAG SAG TCA GG 3'	12
V _H 4/6 Back	5' GAG GTY CAG CTG CAR CAR TCT GG 3'	13
V _H 5/9 Back	5' CAG GTY CAR CTG CAG CAG YCT GG 3'	14
V _H 7 Back	5' GAR GTG AAG CTG GTG GAR TCT GG 3'	15
V _H 8 Back	5' GAG GTT CAG CTT CAG CAG TCT GG 3'	16
V _H 10 Back	5' GAA GTG CAG CTG KTG GAG WCT GG 3'	17
V _H 11 Back	5' CAG ATC CAG TTG CTG CAG TCT GG 3'	18

Mouse V_H back primers

V _H 1 Back	5'	GAC ATT GTG ATG WCA CAG TCT CC 3'	19
V _H 2 Back	5'	GAT GTT KTG ATG ACC CAA ACT CC 3'	20
V _H 3 Back	5'	GAT ATT GTG ATR ACB CAG GCW GC 3'	21
V _H 4 Back	5'	GAC ATT GTG CTG ACM CAR TCT CC 3'	22
V _H 5 Back	5'	SAA AWT GTK CTC ACC CAG TCT CC 3'	23
V _H 6 Back	5'	GAY ATY VWG ATG ACM CAG WCT CC 3'	24
V _H 7 Back	5'	CAA ATT GTT CTC ACC CAG TCT CC 3'	25
V _H 8 Back	5'	TCA TTA TTG CAG GTG CTT GTG GG 3'	26

Mouse J_H forward primers

J _H 1 For	5'	TGA GGA GAC GGT GAC CGT GGT CCC 3'	27
J _H 2 For	5'	TGA GGA GAC TGT GAG AGT GGT GCC 3'	28
J _H 3 For	5'	TGC AGA GAC AGT GAC CAG AGT CCC 3'	29
J _H 4 For	5'	TGA GGA GAC GGT GAC TGA GGT TCC 3'	30

Mouse J_κ forward primers

J _κ 1 For	5'	TTT GAT TTC CAG CTT GGT GCC TCC 3'	31
J _κ 2 For	5'	TTT TAT TTC CAG CTT GGT CCC CCC 3'	32
J _κ 3 For	5'	TTT TAT TTC CAG TCT GGT CCC ATC 3'	33
J _κ 4 For	5'	TTT TAT TTC CAA CTT TGT CCC CGA 3'	34
J _κ 5 For	5'	TTT CAG CTC CAG CTT GGT CCC AGC 3'	35

C. Reamplification primers containing restriction sites

Mouse V_H Sfi back primers

V _H 1 Sfi	5'	GTC CTC GCA ACT GCG GCC CAG CCG GCC ATG GCC GAG GTG CAG	36
CTT CAG GAG TCA GG 3'			
V _H 2 Sfi	5'	GTC CTC GCA ACT GCG GCC CAG CCG GCC ATG GCC GAT GTG CAG	37
CTT CAG GAG TCR GG 3'			
V _H 3 Sfi	5'	GTC CTC GCA ACT GCG GCC CAG CCG GCC ATG GCC CAG GTG CAG	38
CTG AAG SAG TCA GG 3'			
V _H 4/6 Sfi	5'	GTC CTC GCA ACT GCG GCC CAG CCG GCC ATG GCC GAG GTY CAG	39
CTG CAR CAR TCT GG 3'			
V _H 5/9 Sfi	5'	GTC CTC GCA ACT GCG GCC CAG CCG GCC ATG GCC CAG GTY CAR	40
CTG CAG CAG YCT GG 3'			
V _H 7 Sfi	5'	GTC CTC GCA ACT GCG GCC CAG CCG GCC ATG GCC GAR GTG AAG	41
CTG GTG GAR TCT GG 3'			
V _H 8 Sfi	5'	GTC CTC GCA ACT GCG GCC CAG CCG GCC ATG GCC GAG GTT CAG	42
CTT CAG CAG TCT GG 3'			
V _H 10 Sfi	5'	GTC CTC GCA ACT GCG GCC CAG CCG GCC ATG GCC GAA GTG CAG	43
CTG KTG GAG WCT GG 3'			
V _H 11 Sfi	5'	GTC CTC GCA ACT GCG GCC CAG CCG GCC ATG GCC CAG ATC CAG	44
TTG CTG CAG TCT GG 3'			

Mouse J_κ Not forward primers

J _κ 1 Not	5'	GAG TCA TTC TCG ACT TGC GGC CGC TTT GAT TTC CAG CTT GGT	45
GCC TCC 3'			
J _κ 2 Not	5'	GAG TCA TTC TCG ACT TGC GGC CGC TTT TAT TTC CAG CTT GGT	46

CCC CCC 3'

J_K3 Not 5' GAG TCA TTC TCG ACT TGC GGC CGC TTT TAT TTC CAG TCT GGT 47

CCC ATC 3'

J_K4 Not 5' GAG TCA TTC TCG ACT TGC GGC CGC TTT TAT TTC CAA CTT TGT 48

CCC CGA 3'

J_K5 Not 5' GAG TCA TTC TCG ACT TGC GGC CGC TTT CAG CTC CAG CTT GGT 49

CCC AGC 3'

R = A/G, Y = C/T, S = G/C, K = G/T, W = A/T, M = A/C, V = C/G/A, B = G/C/T, and H = C/A/T.

On page 45, line 1, replace "(G₄S₃, SEQ ID NO:___)" with "--(G₄S₃, SEQ ID NO:50)--.

On page 46, line 24, insert "--((His)₆, SEQ ID NO:5)-- after "hexahistidine tag".

On page 47, line 15, insert "--((His)₆, SEQ ID NO:5)-- after "hexahistidine tag".

On page 50, line 14, insert "--(SEQ ID NO:1)-- after "(G₄S)₃".

On page 51, line 10, insert "--((His)₆, SEQ ID NO:5)-- after "hexahistidine tag".

On page 54, delete Table 4 and substitute therefore the following table 4:

V _H Region			Framework 1	CDR1	Framework 2	CDR2	SEQ. ID. NO.
Epit ope	Clone	Lib	Framework 3		CDR3	Framework 4	
1	C15	1	QVJLQSGAELVRPGASVKLSCKTSGYSFT	SYWMN	WVKQGPQGLEWIG	(MIHPSNSEIRFNQKFED)	51
	C9	1	MATLTVDKSSSTAYMQLSSPTSEDSAVYYCAR		(GIYYDYDGGNYIAMDY)	WGQGTFTVASS	52
	ID5	2	E---VE-----N---A-----		R-----	-----T-L---K-	53
	C1	1	K-----		-----E-Y---TL-	-----L-V-	54
	S25	1	K-----R---IH-----		-L-GYGF	WYFDV	55
	1B6	2	K-----T-----		-L-GNGF	WYF-V	56
	1C9	2	E-Q-K-----V---I---A---T-I	(D-A-H)	-S-AKS-	V-SSYYGDTDY--I-KG	57
	1E8	2	K-----N---N---E-PRL---	(D-AVH)	RGKG	V-STYYGDTDY-PK-KG	58
	1G7	2	Q-Q-K-----V---I---A---T-I	(D-AW)	-IR-F--KK--N-	Y-S YSGSTGYNP SLKS	59
			RISI-R-T-KNQFFL--N-V-T--TGT-		-YD	----	60
2	1A1	2	EVKLIVESGGGLVQPGGSRKLSKATSGFTFS	(DYMS)	WIRQSPDKRLEWVA	TISDGGTYTYYPDSVKG	61
	1F1	2	RFTISRDNKNTLYLQMSLKSSEDAMYYCVR		HGYGNYP SH	WYFDV WGAGTFTVTVSS	62
	C39	1	Q-Q-Q-----S-K---L---A-----		-V--T-E-----	-----S-----	63
	C25	1	Q-Q-Q-----K---L---A-----		-V--T-E-----	-----S-----	

			-----N-----S-----YR-DDAM-----Y-----Q-----	
	2G5	2	-----K-----L-----A-----S-A-----V-----T-E-----T-N----- -----HN-----H-----A-----NLPYDHV-----Y-----Q-----S-----	64
	3C3	2	-----K-----K-----L-----A-----S-A-----V-----T-E-----T-N----- -----HN-----H-----A-----NLPYDHV-----Y-----Q-----S-----	65
	3F4	2	EG-----K-----L-----A-----S-A-----V-----T-EH-----F-----T-N----- -----HN-----H-----A-----NLPYDHV-----Y-----Q-----S-----	66
	3H4	2	-----K-----PL-----A-----S-A-----V-----T-EH-----F-----T-N----- -----HN-----H-----A-----NLPYDHV-----Y-----Q-----S-----	67
3	1B3	2	EVQLQESGGGBVQPGRSLRLSCAASGFTF SYAMH WVRQAPGKGLEWVA VISYDGSNKYYADSVKG RFTISRDN SKNTLYLQMNLSRAEDTAVYYCAR DWSEGYYYG MDV WGQGTIVIVSS	68
	1C6	2	QI--LQ-----	69
	2B6	2	VKLVESGP-L-KPSQSLSLTCTVTGYSIT- D-AWN -I--F--NK---MG Y-N---N-NP -L-N -ISIT--T---OFF-KL--VTS---T--- AGDGY-VD WYFDV --T-----	70
	1G5	2	Q----Q--AEL-----A-VKM--K--Y--T --WTT --K-R--Q---IG D-YPGSGSTNYNEKF-S KA-LTV-T-SS-A-M-LS--TS--S----- ELGD A--Y -----S-----	71
	1H6	2	-----K--A-VKM--K--Y--T --WTT --K-R--Q---IG D-YP-SGSTNYNEKF-S KA-LTV-T-SS-A-M-LS--TS--S----- ELGD A--Y -----S-----	72
4	1F3	2	EVQLQQSGAELVKPGASVRLSKASGYTFT SFWMH WVKQRPGRGLEWIG RLDPNSETKYNEKFKS KATLTVDKPSSTAYMELSSLTSED SAVYYCAR EAYGYWN FDV WGTGTTVTIVSS	73
	2E8	2	-----K-----	74

V _L Region			Framework 1	CDR1	Framework 2	CDR2	
			Framework 3		CDR3	Framework 4	
1	2C15	1	DIELTQSPAIMSASPGEKVMTC SASS SVSHMY WYQOKPGSSPRLLIY <u>DTSNLAS</u> GVPIRFSGSGSGTSYSLTISRMEAEASATYYC <u>QQWSSYPFT</u> FGSGTKLELKR				75
	C9	1	--D-----S-----I-- --Y-H -F-----T--KPW-- S----- --A-----SV--A----- --Y-G-L- --A-----I--				76
	1D5	2	-----A-----I-- --S I-S-NLH -----SETSPKPW-- G----- -----V-----S-----A----- --YG--L- --G-----I--				77
	C1	1	-----Y-- -----L- --A----- -----V-----A-----				78
	S25	1	-----L-A-----I-- -V-S I-S-NLH -----S-T--KPW-- G----- -----V-----S-----A----- --L- --A-----I--				79
	1B6	2	-----SLAV-L-QRA-IS- RA-ESVDSYGN-F-H -----QP-K----- RA--E- -I-A-----R-DFT--INPV--D-V----- --SNED-P- --A-----				80
	1C9	2	-----SLAV-L-QRA-IS- RA-ESVDSYGN-F-H -----QP-K----- RA--E- -I-A-----R-DFT--NPV--D-V----- --SNED-Y- --G-----I--				81
	1E8	2	-----Y-H -----S-T--KRW-- --K-- --A-----S-----A----- --N-L- --A-----				82
	1G7	2	-----Y-H -----S-T--KRW-- --K-- --A-----S-----A----- --N-L- --A-----				83
2	1A1	2	DIELTQSPASLAVSLGQRATISC RASESVDSYGN SFMH WYQOKPGQPPLLTY LASNLES GVPARFSGSGSRTDFLTIDFVEADDAATYYC QQNNEDPYT FGGGTKLEIKR				84
	1F1	2	-----T-----				85
	C39	1	-----R-----H-----				86
	C25	1	-----H--Q -----R-----P -I-----G-----N-----V----- --S-----F- --S-----				87
	2G5	2	-----IMSA-P-EKVTTT- S--S SV-Y-- -F-----TS-K-W-- ST--A- -----G-SYS--SRM--E----- --RSSY-- --DQAGN-S				88
	3C3	2	-----IMSA-P-EKVTTT- -----H--Q -F-----TS-K-W-- ST--A- -----G-SYS--SRM--E----- --RSSY-- --DQAGN-S				89
	3F4	2	-T-----IMSA-P-EKVMTT- S--S SV-Y-Y -----SS-R----- DT--A- -----V-----G-SYS--SRM--E----- --WSSY-P- -----				90
	3H4	2	-----IMSA-P-EKVMTT- ---S VSS-YL- -----SS-R----- DT--A-				91